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DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR FISCAL YE--ETC(U)
JAN 81

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DEPARTMENT OF THE ARMY

JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1982

SUBMITTED TO CONGRESS

JANUARY 1981.

Part 2. Missiles.



PART 2 OF 5 PARTS
(MISSILES)

PROCUREMENT

PROGRAMS

AIRCRAFT	MISSILES
WEAPONS & TRACKED COMBAT VEHICLES	
AMMUNITION	OTHER

11 Jan 81
1953

448 992

81 4 6 194

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DEPARTMENT OF THE ARMY
Office of the Deputy Chief of Staff
For
RESEARCH, DEVELOPMENT, AND ACQUISITION

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January 1981

DEPARTMENT OF THE ARMY
PROCUREMENT APPROPRIATIONS

Justification of Estimates for Fiscal Years 1982, 83 (Auth Only)

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DEPARTMENT OF THE ARMY
MISSILE PROCUREMENT, ARMY

Justification of Estimates for Fiscal Year 1982, 1983

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MISSILE PROCUREMENT, ARMY

Section 1

Budget Appendix Extract

Language

Program and Financing Schedule

Object Classification Schedule

APPROPRIATION LANGUAGE

For construction, procurement, production, modification, and modernization of missiles, equipment, including ordnance, ground handling equipment, spare parts, and accessories, therefor; specialized equipmen and training devices; expansion of public and private plants, including the land necessary therefor, without regard to section 4774, title 10, United States Code, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title as required by section 355, Revised Statutes, as amended; and procurement and installation of equipment appliances, and machine tools in public and private plants; reserve plants and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes; (\$1,519,800,000) \$1,650,500,000 to remain (1) available for obligation until September 30, (1983) 1984. (2)

(10 U. S. C. 2353, 3012, 4531, 31 U. S. C. 649c; Department of Defense Appropriation Act, 1980; additional authorizing legislation to be proposed.)

EXPLANATION OF LANGUAGE CHANGES

- (1) To change the amount of appropriation requested for FY 1982.
- (2) To change the obligation expiration date for the FY 1982 program.

Army

Missile Procurement, Army

15 JAN 81

Program and Financing (in thousands of dollars)

Identification code	21-2032-0-1-051	Budget plan (amounts for procurement actions programmed)				Obligations	
		1981 est.		1982 est.		1980 actual	1981 est.
		1980 actual	1981 est.	1982 est.	1982 est.		
Program by activities:							
Direct:							
2.	Other missiles	889,000	1,172,500	1,267,400	776,964	1,137,194	1,222,253
3.	Modification of missiles	119,800	204,800	217,300	93,261	208,939	217,600
4.	Spares and repair parts	112,000	100,300	131,100	102,815	129,881	138,300
5.	Support equipment and facilities	29,824	42,200	34,700	27,277	45,774	37,924
Total direct		1,150,324	1,519,800	1,650,500	1,000,317	1,521,788	1,616,077
Reimbursable program (total)		572,287	442,300	479,200	468,688	485,212	479,383
Total		1,722,611	1,962,100	2,129,700	1,469,005	2,007,000	2,095,460
10.00							
Financing:							
Offsetting collections from:							
11.00	Federal funds	-52,031	-39,200	-34,700	-51,213	-38,100	-34,700
13.00	Trust funds	-520,256	-403,100	-444,500	-456,366	-393,300	-444,500
14.00	Adjustment to non-federal sources				-99		
17.00	Recovery of prior year obligations, obl plan				-41,890		
21.40	Unobligated balance available, start of year:						
21.40	For completion of prior year budget plans						
23.40	Reprogramming from or to prior year budget plan	-6,839					
24.40	Unobligated balance transferred to other accounts	448					
24.40	Unobligated balance available, end of year				421,247	365,447	399,687
25.00	Unobligated balance lapsing	6,391			6,391		
39.00	Budget authority	1,150,324	1,519,800	1,650,500	1,150,324	1,519,800	1,650,500
Budget authority:							
40.00	Appropriation	1,140,800	1,519,800	1,650,500	1,140,800	1,519,800	1,650,500
41.00	Transferred to other accounts	-14,576			-14,576		
42.00	Transferred from other accounts	21,700			21,700		
43.00	Appropriation (adjusted)	1,147,924	1,519,800	1,650,500	1,147,924	1,519,800	1,650,500
50.00	Reappropriation	2,400			2,400		
Relation of obligations to outlays:							
71.00	Obligations incurred, net				961,327	1,575,600	1,616,260
72.40	Obligated balance, start of year				689,558	1,014,718	1,512,318
74.40	Obligated balance, end of year				-1,014,718	-1,512,318	-1,801,578
77.00	Adjustments in expired accounts				56,281		
78.00	Adjustments in unexpired accounts				-41,890		
90.00	Outlays				650,558	1,078,000	1,327,000

Army

Missile Procurement, Army

15 JAN 81

Object Classification (in thousands of dollars)

Identification code	21-2032-0-1-051	1980 actual	1981 est.	1982 est.
Direct obligations:				
Other services:				
25.0		229,580	334,900	380,100
26.0	Supplies and materials	397,076	586,561	612,682
31.0	Equipment	373,861	600,327	623,295
99.0	Total direct obligations	1,000,517	1,521,788	1,616,077
Reimbursable obligations:				
Other services:				
25.0		90,400	125,800	110,700
26.0	Supplies and materials	211,531	194,138	177,512
31.0	Equipment	166,757	165,273	191,171
99.0	Total reimbursable obligations	468,688	485,212	479,383
99.9	Total obligations	1,469,005	2,007,000	2,095,460

15 JAN 81

Missile Procurement, Army

Program and Financing (in thousands of dollars)

1978 Fiscal year program

Identification code 21-2032-0-1-051

Obligations

Budget plan (amounts for procurement actions programmed)

	1980 actual	1981 est.	1982 est.
1980 actual	1981 est.	1982 est.	

Program by activities:

Direct: 250J10

2. Other missiles

3. Modification of missiles

4. Spares and repair parts

5. Support equipment and facilities

Total 10204

Reimbursable program (total)

Total	00.00
-------	-------

Financing:

Offsetting collections from:

11.00	Adjustment to py federal fund orders
-------	--------------------------------------

13.00	Adjustment to py trust fund orders
-------	------------------------------------

14.00 Adjustment to non-federal sources

17.00	Recovery of prior year obligations, obl plan

Unobligated balance available, start of year:

21.40 For completion of prior year budget plans

21.40 Reprogramming from or to prior year budget plan

23.40 Unobligated balance transferred to other

account

25.00	Unobligated balance lapsing

7,109

1,376

1,983

1,788

1,256

1,421

2,677

1,840

14,826

66-

40,510

25, 325

•

357

6,391

Army	Missile Procurement, Army	15 JAN 81
Program and Financing (in thousands of dollars)		1979 Fiscal year program
Identification code	21-2032-0-1-051	Obligations
Budget plan (amounts for procurement actions programmed)		
1980 actual 1981 est. 1982 est.		1980 actual 1981 est. 1982 est.
Program by activities:		
Direct:		
2.	Other missiles	73,335 464
3.	Modification of missiles	5,283 1,713
4.	Spare and repair parts	24,544 2,169
5.	Support equipment and facilities	4,145 3,018
Total direct		107,307 7,364
Reimbursable program (total)		11,186 18,207
Total		118,493 25,571
10.00		
Financing:		
Offsetting collections from:		
11.00	Adjustment to py federal fund orders	-1,022 1,100
13.00	Adjustment to py trust fund orders	19,064 9,600
14.00	Adjustment to non-federal sources	-43
17.00	Recovery of prior year obligations, obl plan	-1,380
21.40	Unobligated balance available, start of year:	
21.40	For completion of prior year budget plans	-171,674 -36,471
23.40	Reprogramming from or to prior year budget plan	
23.40	Unobligated balance transferred to other accounts	
24.40	Unobligated balance available, end of year	91 36,471
40.00	Budget authority	

Army

Missile Procurement, Army

15 JAN 81

Program and Financing (in thousands of dollars)				1980 Fiscal Year program			
Identification code	21-2032-0-1-051	Budget plan (amounts for procurement actions programmed)		Obligations			
		1980 actual	1981 est.	1982 est.	1980 actual	1981 est.	1982 est.
Program by activities:							
Direct:							
2.	Other missiles	889,000			696,520	157,366	35,114
3.	Modification of missiles	119,500			86,602	26,098	4,800
4.	Spare and repair parts	112,000			76,288	31,212	4,500
5.	Support equipment and facilities	29,824			22,344	6,256	1,224
Total direct							
	Reimbursable program (total)	1,150,324			881,754	222,932	45,638
		572,287			456,081	91,050	25,156
10.00	Total	1,722,611			1,337,835	313,982	70,794
Financing:							
Offsetting collections from:							
11.00	Federal funds	-52,031			-52,031		
13.00	Trust funds	-520,256			-520,256		
21.40	Unobligated balance available, start of year					-384,776	-70,794
24.40	Unobligated balance available, end of year				384,776	70,794	
39.00	Budget authority	1,150,324			1,150,324		
Budget authority:							
40.00	Appropriation	1,140,800			1,140,800		
41.00	Transferred to other accounts	-14,576			-14,576		
42.00	Transferred from other accounts	21,700			21,700		
43.00	Appropriation (adjusted)	1,147,924			1,147,924		
50.00	Reappropriation	2,400			2,400		

Army	Missile Procurement, Army	15 JAN 81
Program and Financing (in thousands of dollars)		1981 Fiscal year program
Identification code	21-2032-0-1-051	
Budget plan (amounts for procurement actions programmed)		Obligations
1980 actual	1981 est.	1982 est.
1980 actual	1981 est.	1982 est.
Program by activities:		
Direct:		
2.	Other missiles	1,172,500
3.	Modification of missiles	204,800
4.	Spares and repair parts	100,300
5.	Support equipment and facilities	42,200
	Total direct	1,519,800
	Reimbursable program (total)	442,300
10.00	Total	1,962,100
Financing:		
Offsetting collections from:		
11.00	Federal funds	-39,200
13.00	Trust funds	-403,100
21.40	Unobligated balance available, start of year	
24.40	Unobligated balance available, end of year	
40.00	Budget authority	1,519,800
		979,364
		179,128
		96,500
		36,500
		1,291,492
		375,955
		1,667,447
		136,014
		23,000
		3,700
		4,800
		167,514
		46,907
		214,421
		-39,200
		-403,100
		-294,653
		80,232
		1,519,800

15 JAN 81

1982 Fiscal year program

Obligations

1.810.245

-34,700
-444,500

-444,500
319,455

1,650,500

MISSILE PROCUREMENT, ARMY

Section 2

Introductory Statement

2-10

1/15/81

DEPARTMENT OF THE ARMY
ANNUAL BUDGET ESTIMATES

FY 1982 83

Budget

Appropriation:

Missile Procurement, Army

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of surface-to-air, surface-to-surface, and antitank/assault missile systems. Also included are major components, modifications, targets, test equipment, and depot repairable spares and repair parts; and production base support.

The FY 1982 program continues procurement of the TOW antitank/assault missile system, the Improved HAWK and CHAPARRAL replacement motors, STINGER and PATRIOT air defense systems, Multiple Launch Rocket System (MLRS), and the HELLFIRE Heliborne missile system; and production support of U.S. ROLAND missile system, funded in prior fiscal years. Procurement is initiated for the PERSHING II. Also included is procurement for the modification of the CHAPARRAL, Improved HAWK, DRAGON, and TOW Missile Systems and the AN/TSQ-73 Missile Minder System.

The FY 1983 program continues procurement of CHAPARRAL and HAWK replacement motors, the HELLFIRE missile system and PATRIOT air defense system, the STINGER manportable air defense weapon, the TOW antitank/assault missile system, the MLRS, and PERSHING II missile system; and production support of U.S. ROLAND missile systems funded in previous fiscal years. Also included is procurement for the modifications of the Improved HAWK, CHAPARRAL, and TOW missile systems, and the AN/TSQ-73 Missile Minder System.

MISSILE PROCUREMENT, ARMY

Section 3

Summary of Requirements

2-12 1/15/81

SUMMARY OF REQUIREMENTS (in Thousands of Dollars)

Appropriation:

Missile Procurement, Army	FY 1980 Actual	FY 1981 Estimate	FY 1982 Estimate
Antiballistic System.....	-0-	-0-	-0-
Other Missiles.....	\$ 889,000	\$ 1,172,500	\$ 1,267,400
Modification of Missiles.....	119,500	204,800	217,300
Spares and Repair Parts.....	112,000	109,300	131,100
Support Equipment and Facilities.....	29,824	42,200	34,700
Total Direct Program.....	\$1,150,324	\$ 1,519,800	\$ 1,650,500
Reimbursable Program.....	572,287	442,300	479,200
TOTAL PROGRAM REQUIREMENTS.....	\$1,722,611	\$ 1,962,100	\$ 2,129,700
Less: Portion of program to be obligated in subsequent fiscal years.....	\$ 348,776	\$ 294,653	\$ 319,455
Plus: Obligation incurred against prior year program funds.....	\$ 95,170	\$ 339,553	\$ 285,215
TOTAL OBLIGATIONS.....	1,469,005	\$ 2,007,000	\$ 2,095,460

SUMMARY OF REQUIREMENTS (in Thousands of Dollars)

Appropriation:		FY 1983 Estimate
<u>Missile Procurement, Army</u>		
Antiballistic Systems.....	-0-	
Other Missiles.....	\$ 1,905,000	
Modification of Missiles.....	105,600	
Spares and Repair Parts.....	154,400	
Support Equipment and Facilities.....	23,200	
<hr/>		
Total Direct Program.....	\$ 2,191,200	

MISSILE PROCUREMENT, ARMY

Section 4

Budget Activity Justification

Activity 1 - Antibalistic Missile System

Activity 2 - Other Missiles

Activity 3 - Modification of Missiles

Activity 4 - Spares and Repair Parts

Activity 5 - Support Equipment and Facilities

2-15 1/15/81

FORMAT J

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army	FY 1982	
		Budget	
		(In Thousands of Dollars)	
Budget Program or Budget Project Account Activity 1 - Antiballistic Missile System (SAFEGUARD)		Actual Fiscal Year 1980	Estimate Fiscal Year 1981
		\$ -0-	\$ -0-
Direct Obligations or Direct Budget Plan			\$ -0-

Section 1 - PURPOSE AND SCOPE

These funds provide for procurement of the SAFEGUARD Antiballistic Missile System, including missile, launching and control devices, and associated equipment and related production base support.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

No funds are requested for FY 1982 and FY 1983 in this activity.

FORMAT J

Department of the Army Annual Budget Estimate JUSTIFICATION	Appropriation		FY 1982 Budget
	Missile Procurement, Army		
	(Thousands of Dollars)		
	Actual	Estimate	
Budget Program or Budget Project Account			
Activity 2 - Other Missiles	FY 1980	FY 1981	FY 1982
Direct Obligation or Direct Budget Plan			
	\$ 889,000	\$1,172,500	\$ 1,267,400

Section 1 - PURPOSE AND SCOPE

Provides for procurement of surface-to-air, antitank/assault, surface-to-surface and air-to-surface missile systems; related ground support equipment; and initial issue and replacement of losses consumed in reliability firings, crew proficiency firings, and other training activities.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

CHAPARRAL Missile System - \$4.4 million is requested for smokeless rocket motors to replace shelf life motor losses.

HAWK Air Defense Missiles - \$4.8 million is requested for replacement rocket motors.

ROLAND Missile System - \$65.0 million is requested to fund logistics support associated with ongoing production. Procures the ROLAND Institutional Trainer, Electronic Counter-Countermeasures (ECCM) modification retrofit and upgrade of technology transfer hardware to production configuration. The US ROLAND will provide quick reaction, all weather, short-range air defense protection for the Rapid Deployment Force.

PATRIOT Missile System - \$486.1 million is requested to procure 130 missiles and 6 fire units for the PATRIOT missile system. PATRIOT is an improved system which will replace NIKE-HERCULES and HAWK and is better able to meet the threat of the 1980's and beyond.

STINGER Missile System - \$132.3 million is requested for procurement of 1974 STINGER missiles and ground support equipment. The program for FY 82 represents the fifth year of a planned nine-year procurement effort designed to fill the Army inventory objective. The STINGER, which replaces the obsolete REDEYE, has greater accuracy and a significantly improved engagement capability.

TOW Missile System - \$99.1 million is requested to procure 12,000 TOW missiles to support the inventory objective and blast simulators needed for training. The 1982 procurement program will afford continuation of a cost effective warm production base, providing improved tactical missile, needed to defeat the increasing armor threat.

Department of the Army		FY 1982
Annual Budget Estimates		Budget
JUSTIFICATION		
Budget Program or Budget Project Account		
Activity 2 - Other Missiles		
Appropriation		
Missile Procurement, Army		

FORMAT A

Multiple Launch Rocket System (MLRS) - \$184.0 million is requested to procure 2496 rockets and associated ground support equipment. The MLRS is an 8.9-inch-diameter multiple rocket launcher system with tracked self-propelled launcher/loader, disposable pods, and fire control equipment. Its mission is to neutralize or suppress enemy field artillery, air defense systems, and supplement cannon artillery when targets exceed capabilities during surge conditions.

HELLFIRE - \$ 94.8 million is requested to procure 502 missiles and associated support equipment. The purpose of the HELLFIRE missile system is to defeat the current and future armor threat at long stand-off ranges. When mounted on the Advanced Attack Helicopter, AH 64, it will increase helicopter survivability and fire power.

PERSHING - \$196.9 million is requested to procure 39 PERSHING II missiles and ground support equipment, including telemetry for the operational firing program. PERSHING II will replace the aging PERSHING Ia.

Department of the Army Annual Budget Estimate JUSTIFICATION	Appropriation Missile Procurement, Army (Thousands of Dollars)	FY 1982	
		Budget	
Budget Program or Budget Project Account			
Activity 2 - Other Missiles			Estimate
Direct Obligation or Direct Budget Plan		FY 1983	
			\$ 1,905,000

Section 1 - PURPOSE AND SCOPE

Provides for procurement of surface-to-air, air-to-surface, antitank/assault, and surface-to-surface missile systems; related ground support equipment and initial issue and replacement of losses consumed in reliability firings, crew proficiency firings and other training activities.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

CHAPARRAL Missile System - \$4.5 million is requested to continue procurement of replacement rocket motors for CHAPARRAL missiles to improve reliability of the system.

HAWK Air Defense Missiles - \$4.1 million is requested for replacement rocket motors to improve reliability of the system.

U.S. ROLAND Missile System - \$60.0 million is requested to continue logistics support associated with ongoing production. The U.S. ROLAND will provide quick reaction all-weather, short-range air defense protection for the Rapid Deployment Force.

PATRIOT Missile System - \$678.6 million is requested for hardware procurement in FY 83. PATRIOT is a mobile air defense system consisting of a phased array radar set, engagement control station, power plant, and launching station, each mounted on a wheeled vehicle. The missile is mounted within a canister which serves both as a shipping container and launch tube.

STINGER Missile System - \$194.2 million is requested for the continuation of the procurement of the STINGER missile system. The program for FY 83 represents the sixth year of a planned nine-year procurement effort designed to fill the Army's inventory objective. The STINGER, scheduled to replace the obsolete REDEYE, has greater accuracy and a significantly improved engagement capability.

HELLFIRE Missile System - \$119.2 million is requested to procure 1213 HELLFIRE missiles and associated ground equipment. The purpose of the HELLFIRE missile system is to defeat the current and future armor threat at long stand-off ranges. When mounted on the Advanced Attack Helicopter, AH 64, it will increase helicopter survivability and fire power.

FORMAT A

Department of the Army Annual Budget Estimates		FY 1982
JUSTIFICATION		Budget
Appropriation	Budget Program or Budget Project Account	
Missile Procurement, Army	Activity 2 - Other Missiles	

TOW Missile System - \$100.1 million is requested for procurement of 12,000 improved missiles in support of the inventory objective and for blast simulators.

MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) - \$410.9 million is requested to continue procurement of tactical rockets, and associated ground support equipment. This is the fourth year of a multi-year procurement designed to fill the Army inventory objective. MLRS is a self-propelled, fast-reacting, multiple rocket launcher which will provide a high volume of fire in a very short time against the surge threat.

PERSHING II - \$333.4 million is requested to procure the PERSHING II (PII) Missiles System. PII missiles have added range and accuracy and will provide nuclear fire support to Supreme Allied Command, Europe in the Quick Reaction Alert Role.

FORMAT J

Department of the Army Annual Budget Estimate JUSTIFICATION	Appropriation		FY 1982
	Missile Procurement, Army		
	(Thousands of Dollars)		
	Actual	Estimate	Estimate
Budget Program or Budget Project Account	FY 1980	FY 1981	FY 1982
Activity 3 - Modifications of Missiles			
Direct Obligation or Direct Budget Plan			
	\$ 119,500	\$ 204,800	\$ 217,300

Section 1 - PURPOSE AND SCOPE

Provides for the modification of surface-to-air, surface-to-surface, and antitank missile systems.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

CHAPARRAL - \$60.9 million is requested to provide the CHAPARRAL missile system with a Forward Looking Infrared (FLIR) sight capability improvement which allows target engagements during periods of darkness and limited visibility conditions, more than doubling the systems operability. It also initiates procurement of selected items for the pneumatic systems to increase system reliability.

HAWK - \$11.3 million is requested for modifications to the Improved HAWK missile system to continue the effort to upgrade the capability of the missile to counter the advancing Electronic Countermeasures (ECM) Threat.

TOW - \$110.3 million is needed to procure and retrofit six-inch (full caliber) improved warheads for tactical missiles and guidance system hardening, needed to defeat the advanced armor threat.

GRASS BLADE - \$12.3 million is requested for GRASS BLADE. The program content is classified SECRET " Limited Distribution-Special Access Required", precluding further description. Access to GRASS BLADE is controlled by the Deputy Chief of Staff for Research, Development, and Acquisition.

MODIFICATION LESS THAN \$900,000 - \$1.5 million is requested for Forward Area Alerting Radar (FAAR) modifications to provide a Shelter Heater/Ventilator system, improve the Power Inverter and to improve the Support Maintenance Test Set.

AN/TSA-7J - \$3.0 million is requested to provide increased memory for the Missile Minder System, permitting interface with the PATRIOT Air Defense System.

DRAGON - \$18.0 million is requested to replace defective thruster-igniters in 18,000 missiles.

FORMAT J-1

Department of the Army Annual Budget Estimate JUSTIFICATION	Appropriation	FY 1982 Budget
Budget Program or Budget Project Account	(Thousands of Dollars)	
Activity 3 - Modification of Missiles		Estimate FY 1983
Direct Obligation or Direct Budget Plan		\$105,600

Section 1 - PURPOSE AND SCOPE

Provides for the modification of surface-to-air, surface-to-surface, and antitank missile system.

Section 2 JUSTIFICATION OF FUNDS REQUESTED

CHAPARRAL - \$3.7 million is requested to complete procurement of improved, selected items for the pneumatic system to increase system reliability.

HAWK - \$40.9 million is requested for continuation of the Electronic Countermeasures (ECM) modification to the HAWK missile and long lead items for additional improvements designed to correct firepower deficiencies, improve computer capabilities, upgrade tracking radar electronics and provide a full capability trainer for each tactical unit.

IOW - \$58.9 million is needed to procure and retrofit six-inch (full caliber) improved warheads for tactical missiles, and guidance system hardening, needed to defeat the advanced armor threat.

MODIFICATIONS LESS THAN \$900,000 - \$0.6 million is requested to complete the Forward Area Alerting Radar (FAAR) Support Maintenance Test Set improvement and to improve the reliability of the CHAPARRAL radio.

AN/TSQ-73 - \$1.5 million is requested to complete the improved memory capacity.

FORMAT J

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army	FY 1982		
		Budget		
		(In Thousands of Dollars)		
Budget Program or Budget Project Account	Actual Fiscal Year 1980	Estimate		Fiscal Year 1982
		Fiscal Year 1981	Fiscal Year 1982	
Activity 4 - Spares and Repair Parts				
Direct Obligations or Direct Budget Plan	\$ 112,000	\$ 100,300	\$ 131,100	

Section 1 - PURPOSE AND SCOPE

Provides for the procurement of initial provisioning and peacetime replenishment of repairable major assemblies and repair parts for surface-to-air and surface-to-surface and antitank missile systems and other support items.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Required for the procurement of initial provisioning and peacetime replenishment requirements of centrally managed, high dollar value depot repairable components, assemblies, and repair parts which are not carried in Army Stock Fund inventories.

INITIAL PROVISIONING - \$92.2 million is requested for initial provisioning spares to support major item procurements as follows: \$41.0 million for PATRIOT spares, \$0.4 million for STINGER spares; \$1.7 million for HELFIRE spares; \$26.7 million for Multiple Launch Rocket System (MLRS) spares; \$4.3 million for TOW modifications spares; \$0.2 million for Air Defense Target spares; \$0.2 million for AN/TSQ-73 Modifications spares; \$12.9 million for PERSHING II spares; and \$4.8 million for CHAPARRAL modifications spares.

REPLENISHMENT REPAIR PARTS - \$38.9 million is requested for peacetime replenishment repair parts.

Department of the Army Annual Budget Estimates		Appropriation		FY 1982	
JUSTIFICATION		Missile Procurement, Army		Budget	
Budget Program or Budget Project Account		(In Thousands of Dollars)		Estimate	
Activity 4 - Spares and Repair Parts				Fiscal Year 1983	
Direct Obligations or Direct Budget Plan				\$ 157,400	

Section 1 - PURPOSE AND SCOPE

Provides for the procurement of initial provisioning, peacetime replenishment, and mobilization reserve of repairable major assemblies and repair parts for surface-to-air, air-to-surface, surface-to-surface, and antitank missile systems and other support items.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Required for the procurement of initial provisioning, peacetime replenishment, and mobilization reserve requirements of centrally managed, high dollar value depot repairable components, assemblies, and repair parts which are not carried in Army Stock Fund inventories.

INITIAL PROVISIONING - \$108.7 million is requested for initial provisioning spares to support major item procurements as follows: \$76.8 million for PATRIOT spares; \$1.5 million for HELLFIRE spares; \$18.7 million for PERSHING spares; \$8.9 million for Multiple Launch Rocket System (MLRS) spares; \$0.4 million for CHAPARRAL modifications spares; \$1.9 million for TOW modifications spares. \$0.3 million for AN/TSQ-73 modifications spares and \$0.2 million for Air Defense Target spares.

REPLENISHMENT REPAIR PARTS - \$48.7 million is requested for peacetime replenishment repair parts.

FORMAT J

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army	FY 1982	
		Budget	
		(In Thousands of Dollars)	
Budget Program or Budget Project Account	Actual Fiscal Year 1980	Fiscal Year 1981	Fiscal Year 1982
Activity 5 - Support Equipment and Facilities			
Direct Obligations or Direct Budget Plan	\$ 29,824	\$ 42,200	\$ 34,700

Section 1 - PURPOSE AND SCOPE

Provides for the procurement of support equipment, items less than \$900,000 and production base support for the Army missile system.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Air Defense Targets - \$8.3 million is requested for Ballistic Aerial Target System (BATS) and for continued production of the Variable Speed Training Target (VSTT) and procurement of other target missiles, towed targets, and ground support equipment. This program provides target missiles for training of air defense personnel and for evaluation of air defense weapons systems.

Items less Than \$900,000 - \$0.3 million for procurement of tool and test sets peculiar to missile system hardware maintenance and repair.

Production-Base Support - \$26.1 million is requested to fund 33 projects. Twenty-eight projects totaling \$9.0 million are in the area of manufacturing methods and technology, and deal with the advancement of manufacturing techniques for various missile components. Four projects totaling \$3.5 million are related to Provision of Industrial Facilities (PIF) consisting of providing replacement or new equipment used for production testing of weapon systems and associated materials at White Sands Missile Range, rehabilitation of buildings at a Government-owned contractor-operated (GOCO) facility at Redstone Arsenal, and preparation of design criteria and specifications for submission to Corps of Engineers for execution of concept/final design and specification for construction. \$6.4 million is requested for procurement of capital plant equipment required to support the depot maintenance mission. Additionally, \$7.2 million is requested for Productivity Enhancing Capital Investments to procure a ROLAND missile system Maintenance Trainer Simulator.

Department of the Army Annual Budget Estimates JUSTIFICATION Budget Program or Budget Project Account	Appropriation Missile Procurement, Army (In Thousands of Dollars)	FY 1982	
		Budget	
		Estimate	
		Fiscal Year 1983	
Activity 5 - Support Equipment and Facilities			
Direct Obligations or Direct Budget Plan		\$ 23,200	

Section 1 - PURPOSE AND SCOPE

Provides for the procurement of support equipment, items less than \$900,000 and production base support, for the Army missile programs.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Air Defense Targets - \$9.4 million is requested for procurement of air defense target missiles, towed targets, and ground support equipment.

Items less Than \$900,000 - \$0.3 million is requested for procurement of tool and test sets peculiar to missile systems hardware maintenance and repair.

Production Base Support - \$13.5 million is requested to support Manufacturing Methods and Technology (MM&T) projects (\$9.9 million), Provisions of Industrial Facilities (PIF) projects (\$2.8), Layaway of Industrial Facilities (\$0.6 million), and capital equipment in support of the depot maintenance mission (\$0.2 million).

MISSILE PROCUREMENT, ARMY

Section 5

Comparison of Program Requirements and Financing

Comparison of FY 1981 program requirements as reflected in FY 1981 budget with FY 1981 program requirements as shown in FY 1982 budget.

Comparison of FY 1981 financing as reflected in FY 1981 budget with FY 1981 financing as shown in FY 1982 budget.

Comparison of FY 1980 program requirements as reflected in FY 1981 budget with FY 1980 program requirements as shown in FY 1982 budget.

Comparison of FY 1980 financing as reflected in FY 1981 budget with FY 1980 financing as shown in FY 1982 budget.

COMPARISON OF FY 1981 PROGRAM REQUIREMENTS
AS REFLECTED IN FY 1981 BUDGET WITH
FY 1981 PROGRAM REQUIREMENTS AS SHOWN IN FY 1982 BUDGET

Appropriation:	SUMMARY OF REQUIREMENTS (In Thousands of Dollars)			Increase (+) or Decrease (-)
	Total Program Requirements Per FY 81 Budget	Program Requirements Per FY 1982 Budget		
Activity 1 - Antiballistic Missile System	-0-	-0-		-0-
Activity 2 - Other Missiles	1,156,500	1,172,500		+ 16,000
Activity 3 - Modification of Missiles	204,800	204,800		- 0-
Activity 4 - Spares and Repair Parts	110,900	100,300		- 10,600
Activity 5 - Support Equipment and Facilities	42,200	42,200		-0-
TOTAL	1,514,400	1,519,800		+ 5,400

Explanation by Activity

Activity 2 - Other Missiles (+\$16,000) - An increase of \$41 million in CHAPARRAL and a \$25 million reduction in PATRIOT by Congress.

Activity 4 - Spares and Repair Parts (-\$10,600) - A decrease of \$10.6 million by Congress.

COMPARISON OF FY 1981 FINANCING AS REFLECTED
IN THE FY 1981 BUDGET WITH FY 1981 FINANCING
AS SHOWN IN FY 1982 BUDGET

	(In Thousands of Dollars)		Increase (+) or Decrease (-)
	Financing Per FY 1981 Budget	Financing Per FY 1982 Budget	
Appropriation:			
Program Requirements, (Total)		\$ 1,962,100	+ 225,700
Program Requirements (Service Account)	\$1,736,400	(1,519,800)	(+ 5,400)
Program Requirements (Reimbursable)	(1,514,400)	(442,300)	(+ 220,300)
	(222,000)		
Less:			
Anticipated reimbursements	222,000	442,300	+ 220,300
Reprogramming from prior year budget plans			
Unobligated balance available from prior year to finance new budget plans			
Unobligated balance transferred from other accounts			
Add:			
Unobligated balance transferred to other accounts			
Unobligated balance available to finance subsequent year budget plans			
BUDGET AUTHORITY	\$1,514,400	1,519,800	+ 5,400
Appropriation	1,514,400	1,519,800	+ 5,400

EXPLANATION OF CHANGES IN FINANCING

The Fiscal year 1981 program has increased \$225.7 million since preparation of the Fiscal Year 1981 budget for Congress. Adjustments to financing categories are explained below:

1. Anticipated reimbursements; \$220.3 million increase in Foreign Military Sales Program.
2. Budget Authority: \$5.4 million increase by Congressional action.

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COMPARISON OF FY 1980 PROGRAM REQUIREMENTS
AS REFLECTED IN FY 1981 BUDGET WITH
FY 1980 PROGRAM REQUIREMENTS AS SHOWN IN FY 1982 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation:	Total Program Requirements		Program Requirements		Increase (+) or Decrease (-)
	Per FY 81 Budget	Per FY 82 Budget	Per FY 81 Budget	Per FY 82 Budget	
Activity 1 - Antiballistic Missile system	-0-	-0-	-0-	-0-	-0-
Activity 2 - Other Missiles	896,100	889,000	896,100	889,000	- 7,100
Activity 3 - Modification of Missiles	104,700	119,500	104,700	119,500	+ 14,800
Activity 4 - Spares and Repair Parts	114,500	112,000	114,500	112,000	- 2,500
Activity 5 - Support Equipment and Facilities	27,200	29,824	27,200	29,824	+ 2,624
TOTAL	1,142,500	1,150,324	1,142,500	1,150,324	+ 7,824

Explanation by Activity

Activity 2 - Other Missiles (-\$7,100) - A reduction of \$4.0 million in HAWK reprogrammed to Military Personnel, Army. A reduction of \$3.1 million inflation denied by Congress.

Activity 3 - Modification of Missiles (+\$14,800) - An increase in HAWK Modifications of \$20.4 million by congress. An increase of \$0.8 million in CHAPARRAL Modifications was reprogrammed from Spares and Repair Parts. A reduction of \$3.0 million in LANCE Modifications was reprogrammed to Military Personnel, Army. A reduction of \$3.0 million in LCSS Modifications was reprogrammed to other appropriations. A reduction of \$0.4 million inflation denied by Congress.

Activity 4 - Spares and Repair Parts (-\$2,500) - A reduction of \$1.6 million was reprogrammed to Military Personnel, Army. \$0.8 million was reprogrammed to CHAPARRAL Modifications and \$0.1 million was reprogrammed to Production Base Support.

Activity 5 - Support Equipment and Facilities (+\$2,624) - An increase of \$0.1 million reprogrammed from Spares and Repair Parts. An increase of \$2.5 million as a result of the FY 1980 Supplemental Budget Action.

COMPARISON OF FY 1980 FINANCING AS REFLECTED
IN THE FY 1981 BUDGET WITH FY 1980 FINANCING
AS SHOWN IN FY 1982 BUDGET

(In Thousands of Dollars)			
Appropriation:	Financing Per FY 1981 Budget	Financing Per FY 1982 Budget	Increase (+) or Decrease (-)
Missile Procurement, ARMY			
Program Requirements, (Total)	1,542,500	1,722,611	+ 180,111
Program Requirements (Service Account)	(1,142,500)	(1,150,324)	(+ 7,824)
Program Requirements (Reimbursable)	(400,000)	(572,287)	(+ 172,287)
Less:			
Anticipated reimbursements	400,000	572,287	+ 172,287
Reprogramming from prior budget plans			
Unobligated balance available from prior year to finance new budget plans			
Unobligated balance transferred from other accounts			
Add: Unobligated balance transferred to other accounts			
Unobligated balance available to finance subsequent year budget plans			
	BUDGET AUTHORITY	1,150,324	+ 7,824
BUDGET AUTHORITY			
Appropriation.....	1,140,800	1,140,800	
Transferred to Other Accounts.....	- 20,000	- 14,576	+ 5,424
Transferred from Other Accounts.....	21,700	21,700	
Appropriation (Adjusted).....	1,142,500	1,147,924	+ 5,424
Reappropriation.....		2,400	+ 2,400

EXPLANATION OF CHANGES IN FINANCING

The Fiscal Year 1980 program has increased \$160.1 million since preparation of the Fiscal Year 1981 budget to Congress. Adjustments to financing categories are explained below:

1. Anticipated Reimbursements: \$172.3 million increase in Foreign Military Sales Program.
2. Budget Authority: \$2.4 million increase as a result of FY 1980 supplemental budget action by Congress. \$5.4 million transferred from other accounts.

MISSILE PROCUREMENT, ARMY

Section 7

Analysis of Unobligated Balances

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MISSILE PROCUREMENT, ARMY
Analysis of Unobligated Balances - FY 1982 PROGRAM
Summary by Category

Category	Estimated Unobligated Dollars (Millions)		% of Total Unobligated	
1. Reserved to support contracts	\$283.8		71.0	
2. Engineering changes	54.8		13.7	
3. Other	61.1		15.3	
	<u>\$399.7</u>		<u>100 %</u>	
TOTAL Unobligated FY 1982				

Explanation by Category
Based on past experience, it is predicted that the above amounts will remain unobligated at the end of FY 82. Reasons for the unobligated balance have been grouped into three general categories, and are detailed below. These unobligated amounts will therefore be required in subsequent years to complete the procurement of the FY 82 program.

1. Reserved to Support Contracts:
 - a. Held pending award of firm contracts as opposed to letter orders.
 - b. Amounts reserved for incentive contract payments.
 - c. Amounts held to support Product Component Improvement Programs; modification of missiles during production; modification ordered by customers.
 - d. Contractor claims, amounts required to cover liabilities for contracts containing escalation clauses for labor or material cost increases and price redeterminations.
 - e. Contract close-out costs; packing, crating, handling, and packaging and loading charges.
 - f. Government-furnished equipment breakout procurements; preparation of manuals and technical data; reserve for completion of construction elements of production base support facilities projects.
 - g. Delay due to design or testing difficulties.
 - h. Update technical data or procurement package.

MISSILE PROCUREMENT, ARMY (Continued)

2. Engineering Changes:

- a. Engineering services in support of production (unobligated only as expenses are incurred).
- b. Validated engineering change orders to be incorporated into the current manufacturing process.
- c. Engineering changes as a result of acceptance testing.
- d. Amounts reserved to support engineering changes and value engineering proposals.

3. Other:

- a. Additional time required to complete audits of cost data and to obtain contract cost data.
- b. Unfavorable preaward surveys and extended negotiations with contractors.

MISSILE PROCUREMENT, ARMY

Section 9

Modification of Missiles (Exhibit P-33)

<u>P-1 Numbers</u>	<u>Item Nomenclature</u>	<u>Page No.</u>
	MISSILE MODIFICATION PROGRAM	
11	CHAPARRAL	2-37
12	HAWK	2-40
13	TOW	2-41
14	DRAGON	2-43
18	Modifications Less Than \$900,000	2-44
19	GRASS BLADE	2-46
20	AN/TSQ-73	2-47

MISSILE MODIFICATION, ARMY

FY 1982 PRESIDENT'S BUDGET

	Missile/Mod No.	FY 1982		FY 1983	
		Quantity	FY 82 Cost	Quantity	FY 82 Cost
CHAPARRAL	PIP 1-80-03-0306	200	\$ 58.8	--	--
	PIP 1-80-03-0309	100	2.1	200	\$ 3.7
HAWK	PIP 1-79-03-0119		11.3		40.9
TOW	PIP 1-79-03-3018		110.3		58.9
DRAGON		18,000	18.0	--	--
<u>Modifications Less Than \$900,000</u>					
GRASS BLADE	PIP 1-80-03-0705				0.3
	PIP 1-79-03-0702		0.3	--	--
	PIP 1-80-03-0706		0.7		0.3
	PIP 1-81-03-0313				--
AN/TAQ-73	PIP 1-79-03-1102	10	12.3	6	1.5

MISSILE MODIFICATION
(\$ in Millions)

Appropriation: Missile Procurement, Army

Missile Type: CHAPARRAL Guided Missile Intercept, Aerial NIM-72-A/C

Missile Modification Title:

Night Capability - PIP 1-80-03-0306

Pneumatic System - PIP 1-80-03-0309

Description/Justification:

PIP 1-80-03-0306 - The night capability improvement when added to the CHAPARRAL Fire Unit will enable the operator to detect and engage aircraft during periods of darkness and limited visibility conditions. The principle elements of this improvement are a Forward Looking Infrared (FLIR) thermal imaging device, optics, display, autotrack and controls. Note: The present system missiles have the capability to track and engage aircraft during darkness and limited visibility, but the system is presently limited by the necessity for the operator to visually detect and acquire aircraft for the missiles. The night sight will more than double the percent of a 24-hour day in which the system may operate.

PIP 1-80-03-0309 - This Reliability Improvement of Selected Equipments (RISE) PIP results from the low Mean Time Between Failure (MTBF) of the CHAPARRAL Air Compressor and its associated pneumatic system and the consequent excessive depot overhaul requirements and logistics costs. Selected items from the entire pneumatic system, as well as the compressor itself, will be improved or replaced with more suitable and reliable items. To the maximum extent possible, program will consist of improvements to existing items or replacement with items currently designed and in production.

CHAPARRAL Guided Missile Intercept, Aerial MIN-72-A/C (Continued)

Scope of Program:

	FY 1980		FY 1981		FY 1982		FY 1983		Future		Total	
	Prior Year	Qty	Current Year	Amt	Budget Year	Amt	Budget Year + 1	Amt	Years	Qty	Program	Amt
PIP 1-80-03-0306												
MIPA	0.0	200	39.1	288	58.8		0.0		0.0	488	97.9	
RDTE	6.052		7.396		0.0		0.0		0.0		13.448	
OMA	0.0		0.0		.2		2.1		1.8		4.1	
PIP 1-80-03-0309												
MIPA	0.0		0.0	100	2.1	200	3.7	225	5.6	545	11.4	
RDTE	0.0		0.0		0.0		0.0		0.0		0.0	
OMA	0.6		0.5		0.1		0.2		0.4		1.8	

Basis for Cost Estimate: Analytical and engineering techniques.

Method of Implementation: Field installation by contractor/Government contract teams.

CHAPARRAL Guided Missile Intercept, Aerial MIM-72-A/C (Continued)

Development Status:

<u>PIP 1-80-C3-0306</u>	-	Initiate Engineering Effort	-	2QFY80
		Production Contract Award	-	3QFY81
		First Hardware Delivery	-	2QFY82
		Start Installation	-	1QFY83
		Complete Installation	-	4QFY84
 <u>PIP 1-08-03-0309</u>	 -	 Initiate Engineering Effort	 -	 2QFY80
		Production Contract Award	-	2QFY82
		First Hardware Delivery	-	1QFY83
		Start Installation	-	2QFY83
		Complete Installation	-	2QFY85

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MISSILE MODIFICATION
(\$ in Millions)

Appropriation: Missile Procurement, Army

Missile Type: TOW (BCM-71A, BTM-71A) (Heavy Antirank Guided Missile System).

Missile Modification Title:

Improved TOW Missile - PIP 1-79-03-3018

Description/Justification:

PIP 1-79-03-3018 - This modification will provide improved five-inch warheads (FY 1981 program) and improved six-inch (full caliber) warheads and guidance system hardening (FY1982 and later year program).

Development Status:

Event

PIP 1-79-03-3018

Initial Engineering Effort
Hardware Contract Award
First Hardware Delivery
Start Installation
Complete Installation

2QFY79
2QFY80
1QFY81
3QFY81
4QFY86

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TOW (BGM-71A, BTN-71A) (Heavy Antitank Guided Missile System) (Continued)

Scope of Program:

	FY 1980	FY 1981	FY 1982	FY 1983	Future Years	Total Program
	Amt (\$M)	Amt (\$M)	Amt (\$M)	Amt (\$M)	Amt (\$M)	Amt (\$M)
PIP 1-79-03-3018						
MIPA	25.6	104.3	110.3	58.9	36.9	336.0
RDTE	26.2	21.0	6.5	-	-	53.7
OMA	-	-	-	-	-	-

Basis for Cost Estimate: Analytical and engineering techniques.

Method of Implementation: Installation by contractor and/or Government contact teams.

MISSILE MODIFICATION
(\$ in Millions)

Appropriation: Missile Procurement, Army

Missile Type: DRAGON (FGM-77A, FTM-77A) (Medium Antitank Guided Missile System)

Missile Modification Title: Replacement of Defective DRAGON Thruster-Igniters

Description/Justification: Approximately 18,000 DRAGON missiles in Army inventory were identified to have defective thruster-igniters, which will preclude proper guidance of missile to the target, while in flight. Unless these are replaced with new thruster-igniters, the missiles will become unserviceable. New thruster-igniters can be readily procured

Basis of Cost Estimate: FY 79 actual costs for thruster-igniters; estimated transportation costs to and from contractors' plant; Government/Contractors estimates for installation/retrofit labor and repacking costs at contractors' plant.

Method of Implementation: At contractors' plant (contractor to be selected on a competitive bid), retrofit to be applied between 2d, 3rd, and 4th Quarters, FY 1982.

Scope of Program:

FY 1982 (TOTAL PROGRAM) Amt (\$M)

MIPA - Hardware (18,000 thruster/igniters)	\$ 4.8
- Application/Retrofit	13.2

TOTAL \$ 18.0

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MISSILE MODIFICATIONS
(\$ in Millions)

Appropriation: Missile Procurement, Army

Missile Modification Title: Modifications Less Than \$900,000.

Description/Justification:

PIP 1-79-03-0702 - This Forward Area Alerting Radar (FAAR) modification provides a Shelter Heater/Ventilator to reduce moisture inside the shelter by providing heating/ventilation and drying of the environment.

PIP 1-80-03-0705 - This FAAR modification provides redesigned electrical circuitry for the Support Maintenance Test Set (SMTS) system reliability, reduce logistics costs and increase safety.

PIP 1-80-03-0706 - This FAAR modification provides modified power inverter subassemblies to improve reliability, availability and maintainability of the power inverter.

PIP 1-81-03-0313 - This CHAPARRAL modification provides for replacement of germanium transistors in the radio with more heat resistant silicon transistors to reduce radio failures in high temperature environments.

Development Status:

<u>EVENT</u>	<u>PIP 1-79-03-0702</u>	<u>PIP 1-80-03-0705</u>	<u>PIP 1-80-03-0706</u>	<u>PIP 1-81-03-0313</u>
Initiate Engineering Effort	1st Qtr FY 81	1st Qtr FY 82	1st Qtr FY 81	1st Qtr FY 83
Production Contract Award	2nd Qtr FY 81	3rd Qtr FY 82	3rd Qtr FY 81	1st Qtr FY 83
First Hardware Delivery	3rd Qtr FY 82	4th Qtr FY 82	1st Qtr FY 82	2nd Qtr FY 83
Start Installation	4th Qtr FY 82	4th Qtr FY 83	2nd Qtr FY 82	3rd Qtr FY 83
Complete Installation	3rd Qtr FY 83	4th Qtr FY 84	2nd Qtr FY 83	3rd Qtr FY 83

Modifications Less Than \$900,000 (Continued)

Scope of Program:

	FY 1980 & Prior Year		FY 1981 Current Year		FY 1982 Budget Year		FY 1983 Budget Year + 1		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
PIP 1-79-03-0702												
MIPA		.106				.794						.900
OMA		.019				.069		.257				.345
PIP 1-80-03-0705												
MIPA						.006		.300				.306
OMA						.241		.017		.001		.259
PIP 1-80-03-0706												
MIPA		.200				.700						.900
OMA		.138				.348		.124				.610
PIP 1-81-03-0313												
MIPA								.300				.300

Basis for Cost Estimates: Project estimates and engineering techniques.

Method of Implementation: Improvements will be retrofitted by materiel work orders to be applied worldwide by Army depot teams.

MISSILE MODIFICATION
(\$ Millions)

Appropriation: Missile Procurement, Army

Missile Modification Title: GRASS BLADE

Description/Justification: GRASS BLADE is classified SECRET "Limited Distribution Special Access Required" precluding further description. Access to GRASS BLADE is controlled by the Deputy Chief of Staff for Research, Development, and Acquisition.

Scope of Program:

	FY 1980 Prior Year	FY 1981 Current Year	FY 1982 Budget Year	FY 1983 Budget Yr + 1	Future years	Total Program
MIPA	0	11.3	12.3	0	0	23.6
RDTE	88.5	36.1	22.0	11.3		157.9
OWA	0	0	0	.9		.9

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MISSILE MODIFICATION
(\$ in Millions)

Appropriation: Missile Procurement, Army

Missile Type: Air Defense Command & Control System, AN/TSQ-73

Missile Modification Title: C-MOS Computer Memory Improvement - PIP 1-79-03-1102

Description/Justification: PIP 1-79-03-1102 - Provides additional memory capacity to the AN/TSQ-73 computer by replacing existing core memory with a complementary metallic Oxide Silicon (CMOS) chip. Additional memory capacity is required for interoperability with PATRIOT, I-HAWK, and various NATO Command and Control Systems. The increase will be from 8000 to 32000+ bits.

Development Status:

EVENT

PIP 1-79-03-1102

Initiate Engineering Effort
Hardware Contract Award
First Hardware Delivery
Start Installation
Complete Installation

2nd Qtr FY 81
2nd Qtr FY 82
2nd Qtr FY 84
1st Qtr FY 85
3rd Qtr FY 85

Scope of Program:	FY 1980 &		FY 1981		FY 1982		FY 1983		Future		Total	
	Prior Year	Current Year	Prior Year	Current Year	Budget Year	Budget Year	Budget Year + 1	Budget Year + 1	Years	Years	Program	Program
PIP 1-79-03-0119	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
MIPA					10	3.0	6	1.5			16	4.5
RDTE		1.5				.5						2.0
OMA										.5		

Basis for Cost Estimate: Prices of similar devices used in computers currently being manufactured.

Method of Implementation: Field installation by depot team.

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DISTRIBUTION

ASD(C)
Plans & Systems
Construction
Procurement
Management Systems
ASD(MRA&L)
ASD(ISA)
ASD(C3I)
ASD(DFOISR)
AS, PA&E
AS, HA
AS, LA
USDRE
JCS
DAS
ASA(IL&FM)
ASA(RD&A)
ASA(M&RA)
OCLL
FOR: HASC
SASC
HBC
CBO
HPSCI
SSCI
NAVY
AIR FORCE
DACA-BUL
FOR: HAC
SAC
DACA-BUF
FOR: OMB
GAO
LOC

DACA-BMZ-A
DACS-DP
DACS-DMZ
DAAG-OPZ
DAAG-RM
DAMI-CIS
DAMI-RMB
DAMO-ZF
DALO-RMZ
DAEN-ZCP
DAAR-COB
NGB-ARC
DASG-RMB
DAAC-RMC
DAMH-2BB
DAMA-CA
DAMA-PP
DAMA-PPP
DAMA-PPR
DAMA-PPT
DAMA-WS
DAMA-WSA
DAMA-WSM
DAMA-WSW
DAMA-CS
DAMA-CSC
DAMA-CSM
DAMA-CSS

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. <i>AD-A07577</i>	3. RECIPIENT'S CATALOG NUMBER
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) In justification of programs requested, this document, in separate volume for each of the five Procurement Appropriations, provides backup data for the Army Budget submission for FY 1982. Included are Summaries of Requirements, Program and Financing Statements and Selected Data Sheets. (This document has been declassified for NTIS distribution).		

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